The Birds of Nepal

PART 11

BY

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[Continued from Vol. 60 (2): 399]

Family DICRURIDAE

748. Dicrurus macrocercus albirictus (Hodgson). Himalayan Black Drongo.

Dun: Hitaura: 1 imm. & (May 14). ChitLang Valley: Chitlang: 1& (March 14). Nepal Valley: Maharajganj, Kathmandu, Patan, Bandegaon, Thankot: 4&&, 3 imm. &&, 3 &\phi, 2 imm. &\phi (March 21, April 4-14, May 5, 17).

The Black Drongo is very common in central Nepal from about 455 m. up to at least 1370 m. It occurs in and about villages, gardens, cultivation, light woods, open fields, etc.

It has also been recorded in eastern Nepal by Ripley (1950b, p. 413) and Biswas (1960a), and in west-central and eastern Nepal by Rand & Fleming (1957, pp. 104-105).

The males were noticed to chase females in the Nepal Valley from early April and they were fully breeding from the beginning of May. By the third week of March the gonads had already started swelling and in May they were fully developed. Thus, an adult male taken March 21, had slightly swollen testes, measuring R: 6.5×4, L: 7×4 mm.; another adult male on April 8 had them more developed (R: 11×6 mm., L: damaged); the adult male shot on May 5 had enormous testes (R: 17×11.5, L: 19.5×9 mm.); and an adult female taken May 17 was actually laying, there being a broken shelled egg in the oviduct.

Colours of soft parts: Iris blood red to deep crimson (reddish brown to brownish red in first year birds); bill, legs, feet and claws black; pads grey.

Immature specimens:

All the six specimens referred to above as immature are first year birds. Their plumage corresponds with the description of first year

birds as given by Whistler (1935, p. 316). Two of the April specimens, both females taken April 4 and 13, are very similar and appear younger than the immature May birds. They have the upper side with very little gloss; rump greyish; upper tail coverts tipped white; primaries brown; axillaries greyish; under wing coverts tipped white; underside brownish; abdomen, vent and under tail coverts fringed with white; irides reddish brown; and non-breeding condition of the ovaries.

The first year birds of May 5 and 17 are in similar plumage. They have blacker and more glossy upper parts and sides of the breast; almost black but not glossy rump; reduced white on the tips of upper tail coverts; brownish primaries; blacker axillaries; under wing coverts blacker and with reduced amount of white on the tips; blacker underside, the May 17 specimen being more so; reduced white on abdomen and vent, more reduced on the May 17 specimen; irides brownish red; testes enlarged (May 5: R: 8×5, L: 8×4.5; May 17: R: 8×5.5, L: 10.5×4.5 mm.). The May 5 specimen was seen chasing a female in full adult plumage.

It would appear that corresponding with the gradual loss of brown and white in attaining the glossy black adult dress, there is a change in the colour of iris from brown of juvenile to blood red or deep crimson of adult through the addition of increased amount of red to brown in first year birds (reddish brown, brownish red). It would further appear that older first year birds (? all, or ? some) do breed. These factors seem analogous to those of the Blackheaded Oriole, Oriolus x. xanthornus (see Vol. 60 (2) p. 398).

Measurements:

	Wing	Tail		Bill
		length	depth of fork	
5 88:	153, 154, 155 (2),	159, 166, 167,	51, 55, 59,	25, 25.5, 26,
	156	169, 172	63 (2)	27, 27.5
3 우오:	149, 151, 153	159, 164, 166	48, 55, 56	26 (2), —

Ripley (1961, p. 287) prefers to combine the Asian D. macrocercus with the African species D. adsimilis.

749. Dicrurus leucophaeus longicaudatus A. Hay. Indian Grey Drongo.

Dun: Bhimphedi: 2 imm. & (March 12, June 18). Chitlang Valley: Chandragiri above Chitlang: 1 \(\text{Q} \) (April 18). Nepal Valley: Kathmandu, Godavari, Thankot: 13 &, 1 imm. \(\delta \), 3 \(\text{Q} \) (March 21-April 14, May 10, 20).

The Grey Drongo is very common in central Nepal, more so above c. 1065 m. It occurs about villages and towns, in gardens and groves, as well as in light forests.

It was preparing to breed from the third week of March. The specimens from this period onwards had their gonads in different progressive stages of enlargement, until the third week of May when specimens with fully breeding condition of gonads (e.g. σ with 16×10 mm. testes) were obtained.

Colours of soft parts: Iris blood red (brownish red in first year birds); bill, legs, feet and claws black; pads grey.

Immature specimens:

All the three immature specimens are males in first year plumage. Of them, the June 18 specimen appears oldest from the amount of gloss and white fringes to the posterior ventral feathers. This specimen had brownish red iris and somewhat enlarged testes (R: 5×3 , L: 9×5 mm.); it probably had already bred. The May 10 specimen looks a little younger. It also had brownish red iris, and enlarged testes (R: 9×6 , L: 12×6 mm.). The other specimen (March 12) appears still younger. No notes on the coloration of its iris and the condition of its gonads are available.

As in the Black Drongo, *Dicrurus macrocercus albirictus* (p. 639), this species also appears to breed in the first year plumage.

Unusual behaviour of a first year specimen:

The oldest of the specimens in first year plumage, a male (Bhimphedi, June 18), indulged in what appeared to be an unusual behaviour. Three fledglings of the Lesser Racket-tailed Drongo (Dicrurus remifer tectirostris) were huddled close together on the branch of a tree, and the first year Grey Drongo was engaged in aerobatics before them (time: about 9 a.m.; air temperature: about 35° C.). The aerial display consisted of upward flights, followed by sudden somersaults in midair with dexterous twists and turns, and finally return to perch on the same branch on which the Rackettailed Drongos were perched or on an adjacent branch of the tree. Each flight was short and in full view of the tiny spectators, and it was almost constantly uttering a harsh call. From time to time it also performed the normal sallies for hunting insects. I am unable to account for the aerobatic flights with certainty. Was it because the bird (which appeared to have bred for the first time in its life) for one reason or the other was in a gay mood that it was happily showing off all it knew about flying to the only spectators it could find—three baby Lesser Racket-tailed Drongos?

Measurements:

750. Dicrurus caerulescens caerulescens (Linnaeus). Whitebellied Drongo.

DUN: Hitaura: 1 & (June 6).

The Whitebellied Drongo appeared rather scarce in central Nepal. The single example listed above was the only one found by us.

While Scully (1879, pp. 271-272) found it common in the central dun in winter, Ripley (1950b, p. 414) and Rand & Fleming (1957, p. 105) reported it from the western tarai only.

This species was not mentioned in the catalogues of Hodgson's collections, but two skins presented by Hodgson to the British Museum, one from Nepal and the other from 'Behar' were listed by Sharpe (1877, p. 253).

My specimen is very worn.

Measurements: 1 &: Wing 126+.

751. Dicrurus annectans (Hodgson). Crowbilled Drongo.

Dun: Hitaura, Paharé Ghat: 1 ♂, 4 imm. ♀♀ (May 18-June 12).

The Crowbilled Drongo did not appear to be common in central Nepal. We came across it only occasionally in the deeper parts of forests of the Hitaura dun, and we found it only singly.

This species does not seem to have been reported from Nepal since Hodgson's time, save for the present record.

The immature birds listed above are in the first year plumage. The May 29 specimen appears to be the youngest of the lot. Its bars on the underside are broad and very conspicuous. It had, however, a somewhat enlarged ovary $(7.5 \times 5 \text{ mm.})$ with two or three 1.5 mm. ova. The June 12 specimen had a more enlarged ovary $(8 \times 6 \text{ mm.})$ with the largest ova measuring 2.5 mm.

Colours of soft parts (of first year birds): Iris dark brown; bill, legs, feet, and claws black; pads yellowish grey.

Measurements: 1 3: Wing 148; tail: length 121, depth of fork 20; bill 30.

In addition to the characters that separate this species from D. macrocercus, as given by Baker (1924, p. 354), the bill of

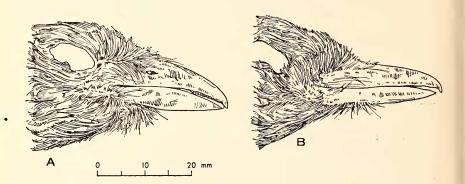


Fig. 3. Bills of Dicrutus annectans (A) and Dicrurus macrocercus albirictus (B) showing their characteristic shapes

D. annectans, which is large, heavy (Vaurie, 1949b, p. 266) and more crow-like, will prove a characteristic feature of distinction (Fig. 3).

752. Dicrurus aeneus aeneus Vieillot. Indian Bronze Drongo.

Bhabar : Amlekhganj : 1 \mathcal{J} (March 8). Dun : Hitaura, Bhimphedi : 2 \mathcal{J} , 1 subad. \mathcal{J} , 1 \mathcal{Q} , 2 imm. $\mathcal{Q}\mathcal{Q}$ (March 12, May 12-15, June 17). Nepal Valley : Thankot : 1 \mathcal{J} , 1 \mathcal{Q} (March 25, 28).

The Bronze Drongo is occasionally seen in the forests of central Nepal. During spring and summer, it occurs singly or in loose parties.

Scully (1879, p. 272) who obtained specimens from the central dun, noted that 'it was never observed in the valley of Nepal, but Mr. Hodgson seems to have obtained it there in summer.' Ripley (1950b, p. 414) found it from the tarai up to c. 1220 m. (his single specimen was taken at Chisapani, c. 275 m., western Nepal). Rand & Fleming's (1957, p. 105) examples were taken in western and west-central Nepal at c. 915-1065 m. in winter.

The two immature females (Hitaura, May 12, 13) were evidently born early that season. They still have some sooty black down on the ventral side, and have grown only a few metallic feathers on the breast.

The Bronze Drongo was breeding in the Nepal Valley late in March, when males were seen chasing females, and a male specimen (March 28) had quite swollen testes (R: 9.5×6, L: 11.5×6 mm.). By June, breeding was over: one male taken June 17 at Bhimphedi (Dun) had almost non-breeding gonads,

Measurements .

wiedsurements:			
Wing	Tai	Bill	
	length	depth of fork	
4 33 : 125, 127, 128(2)	119, 120, 123, 126	29 (2),31, 33	22, 23, 24 (2)
2 99: 125, 126	122, 126	32, 34	23, 23.5

753. Dicrurus remifer tectirostris (Hodgson). Indian Lesser Rackettailed Drongo.

Dun: Bhimphedi: 2 & d, 2 fledgling & d, 1 nestling d, 2 \mathcal{Q}, 1 fledgling \mathcal{Q}, 1 nestling unsexed (May 4-12, June 18). Markhu Valley: Deorali: 3 & d, 2 \mathcal{Q}, 1 subad. \mathcal{Q}, 1 imm. \mathcal{Q} (April 28, 29).

The Lesser Racket-tailed Drongo is occasionally seen in central Nepal. We noted it in small numbers between c. 1220 and 1830 m. on Mahabharat Range about clearings in the forests.

Scully (1879) and Ripley (1950b) were both unable to locate it in Nepal, but Rand & Fleming (1957, p. 106) reported it from the western tarai and the Nepal Valley in January, and Biswas (1960a) from Ramechhāp district, eastern Nepal, at c. 1220 m. in January.

The immature female specimen (April 28) is in the first annual plumage, and the subadult female (April 28) is in the second annual plumage as described by Vaurie (1949b, p. 271). The three fledglings (2 of of, 1 \, 2, June 18) were huddled close together on the branch of a tree and evidently belonged to the same brood.

Measurements:

754. Dicrurus hottentottus hottentottus (Linnaeus). Indian Haircrested Drongo.

TARAI: Simra: 2 & (March 5). BHABAR: Amlekhganj: 1 subad. &, 1 \(\) (March 7, 9). Dun: Hitaura, Paharé Ghat: 2 & \(\) 1 imm. \(\) 1 nestling \(\) , 1 subad. \(\) 3 imm. \(\) (May 27-June 13). Nepal Valley: Godavari: 1 \(\) (May 13).

The Haircrested Drongo is not uncommon in central Nepal. We observed it to be commoner in the Hitaura dun than in the lower

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¹ Up to the base of the shaft

regions (the tarai and bhabar) and the higher regions (Bhimphedi dun upwards). In the Nepal Valley, however, it was seen only once, and the only other record of its occurrence there is by Rand & Fleming (1957, p. 106) who obtained a single juvenile female on Nagar Jong in February. It occurs singly in forests.

Rand & Fleming (loc. cit.) have also found it in western, west-central and eastern Nepal.

My nestling specimen (&, June 13) has black down feathers on the body. Of my immature specimens, the one taken June 13 (Q) appears to be the youngest: it has downy feathers on the underside. Two other specimens (Q, June 7, &, June 11), which have all their remiges and rectrices still growing, are similar to those of adults in coloration. The female has no crest, very short hackles, almost bare axilla, tips of outer tail feathers not curling, brown iris, bill horny black with whitish on the tip, and had non-breeding gonad. The male appears a little older. It has started getting the crest which consists of five rudimentary filamentous feathers. Further, it has short hackles, uncurled outer tail feathers, a few white-tipped axillaries, dark brown iris, and had non-breeding testes.

The specimen from the Nepal Valley (\circ , May 13) had slightly enlarged testes (R: 7.5×3 , L: 6.5×3 mm.), but the adults taken in the duns late in May and early in June, had fully developed gonads.

Colours of soft parts: Iris brownish red to blood red; bill, legs, feet and claws black; pads dark grey.

Measurements:

Wing Tail Bill 5 & 3 : 166.5, 168, 169 (2), 169.5 143, 144, 146, 147.5, 149 39, 41 (2), 42, 43 1 \(\Qmathcal{Q}\): 168 148 42.5

755. Dicrurus paradiseus grandis (Gould). Northern Large Rackettailed Drongo.

TARAI: Simra: 1 & (March 5).

We found the Large Racket-tailed Drongo rather uncommon in central Nepal. Our only specimen was taken in the dense forest of the tarai.

Scully (1879, p. 272) recorded only a captive bird from the lower hills of central Nepal; Ripley (1950b, p. 414) found it 'throughout the Terai', presumably including that of central region; and Rand & Fleming (1957, p. 106) had specimens from the lower regions of western, west-central and eastern Nepal.

Measurements: 1 3: Wing 177; central tail feathers 160; outer tail feathers: left 463, right 468; length of racket: left 99, right 100; width of racket: left 27, right 28; bill from the anterior edge of nostril 25.

Family ARTAMIDAE

756. Artamus fuscus Vieillot. Ashy Swallow-Shrike.

Dun: Hitaura: 8 & δ, 5 ΩΩ (May 19-25, June 1).

The Ashy Swallow-Shrike did not appear to us to be particularly common in central Nepal, except about the Hitaura village in the central dun, where small parties consisting of two to six individuals were commonly met with. Isolated trees in cultivated fields (of maize at that time of the year) were noted to be its favourite launching base in that area.

Our specimens seem to be the only ones collected in Nepal since Hodgson's time. It has not been recorded by Scully (1879) or Rand & Fleming (1957), but Ripley (1950b, p. 383) who did not collect any example, found it to be common 'in the Terai, in open areas, and up to Bhimphedi' in central Nepal dun.

My specimens do not fully agree with the description given by Baker (1924, p. 348), especially in the coloration of the forehead, chin and throat, and wing. Rather, Deignan's (1945, p. 516) description seems to fit them well.

The specimens under report are all more less worn. The tail of a female (May 22), and the forehead, chin and throat of a male (June 1) are in moult.

Examples taken on June 1 ($\sigma \sigma$) had near breeding gonads, R: 8.25×7, 6×4.5; L: 5.5×3, 6×4.5 mm.

Colours of soft parts: Iris reddish brown to blood red (\mathcal{J}) ; bill bright mauveblue with black tip (\mathcal{J}) ; legs and feet slaty, bluish slaty on the back of legs and sides of feet; claws dark horny; pads white.

Measurements:

8 ♂ 5 ♀♀ Wing: 132 (2), 136, 137, 138, 138+, 139, 140 132+, 133+, 134, 138,— Tail: 56+, 57, 58 (2), 58.5, 61, 62, 64 53+, 54, 56, 57, — Bill: 22 (3), 22.5 (3), 23, — 21 (2), 22 (2), 23

Family Corvidae

757. Garrulus glandarius bispecularis Vigors. Western Himalayan Jay.

Garrulus bispecularis Vigors, 1831, Proc. zool. Soc. Lond. (1): 7. (Himalayas, restricted to Murree, West Pakistan, by Baker, 1922d, p. 63.)

758. Garrulus glandarius interstinctus Hartert. Eastern Himalayan Jay.

Dun: Bhimphedi: 1 & (March 14). Markhu Valley: Deorali: 1 &, 1 juv. 2 (May 2, July 2). Chitlang Valley: Chitlang, Chandragiri above Chitlang: [274]

4 성경 (March 15, April 18-21). Nepal Valley: Thankot, Crest of Chandragiri: 4 성경, 8 위 (March 23-April 14).

The Himalayan Jay is a common bird of central Nepal between c. 1220 and 2285 m. in pine and oak forests.

The earlier Nepali records of the species are all from central Nepal, except Stevens's (1923a, p. 515) who reported it from the Mai Valley, eastern Nepal, at c. 2590 m. in March, and Biswas's (1960a) who observed it in Ramechhāp district, eastern Nepal, at c. 1830 m. in January.

The juvenile specimen (Q, July 2) is darker than the adults, and has some downy feathers on the abdomen and vent.

It was breeding on the Chandragiri during mid-April. One of the female examples collected there on April 14 had a somewhat exhausted ovary with a 13 mm. ovum. Another female taken the same day had its ovary only partially mature, its largest ovum being only 3 mm. in a 12×6.5 mm. ovary. This was, however, an anomalous ovary, being located on the right side instead of the left (see Biswas, 1961a).

Colours of soft parts: Iris brownish pink; edges of eyelids dull pink; bill dull black with whitish tip; legs fleshy; feet yellowish fleshy; claws pale horny with whitish on bases; pads white.

Measurements:

10 ♂♂ 8 ♀♀ Wing: 158, 164, 165, 166(2), 167, 168, 169(2), 171 158, 162(2), 163(2), 164(3) Tail: 142, 143, 144, 145, 147, 148, 149, 150(2), 153 135, 139, 140(2), 143, 144, 145,—Bill: 32(5), 33(4),— 30.5(3), 31(2), 31.5(2), 32

Ripley (1950b, p. 416) and Rand & Fleming (1957, p. 114) have identified their birds from central Nepal (Nepal Valley) as bispecularis. Examination of large series from central Nepal shows, however, that this area lies in the zone of intergradation between the western bispecularis and eastern interstinctus, all gradations between the two being found here. While Biswas did not obtain any specimen from eastern Nepal, Stevens's examples from that area have been identified as interstinctus. I am not aware of any known specimen of the species from western Nepal, but birds from that area will, in all probability, prove to be bispecularis, for the few skins from eastern Kumaon not far from western Nepal border, that I have examined, no doubt belong to the western subspecies.

759. Garrulus lanceolatus Vigors. Blackthroated Jay.

Dun: Bhimphedi: 1♂ (March 12). CHITLANG VALLEY: Chitlang: 1♂, 1♀ (April 17, 19).

The Blackthroated Jay was met with by us only on a few occasions between c. 1370 and 1830 m. in central Nepal. It was found singly in thinner parts of oak and pine forests.

Scully (1879) was unable to locate it in Nepal. Ripley (1950b, p. 416) and Rand & Fleming (1957, p. 113) recorded it also from western Nepal.

Our specimens are worn, those taken in April being more so.

Measurements:

	Wing	Tail	Bill
2 33:	155 + , 158	141,—	28(2)
1 우:	151 +	_	27.5

- *760. Cissa flavirostris cucullata (Gould). Western Yellowbilled Blue Magpie.
- *761. Cissa flavirostris flavirostris (Blyth). Eastern Yellowbilled Blue Magpie.

Scully (1879, p. 328) found the Yellowbilled Blue Magpie in the Nepal Valley and Nawakot district, central Nepal. Ripley (1950b, p. 415) reported it from the Tamur Valley, eastern Nepal, at c. 2440 m. upwards. Smythies (1950, p. 513) found it on Phulchauki Danda, Nepal Valley, at c. 2440 m. Proud (1952a, p. 361) observed it in the Gandak-Kosi watershed, central Nepal, at c. 2745 m. Rand & Fleming (1957, p. 110) recorded it from the Kali Gandak Valley, west-central Nepal, at c. 2135-2440 m., and in the Maulung Valley, eastern Nepal, at c. 3050 m.

The few central Nepali skins (Hodgson's earlier collection, as well as Scully's and Bailey's) of this magpie that I have been able to examine indicate that this area falls in the zone of intergradation between the western and eastern subspecies, the specimens showing a great deal of variation among them. This intergrading zone surely extends eastward up to at least the Maulung Valley, for Rand & Fleming's single specimen thence has been identified as belonging to the western race. Further eastward, probably from the Arun Valley, the birds are *flavirostris* (one Hodgson specimen presented to the British Museum in 1859, and Ripley's skins).

It may be pointed out here that Baker's (1922d, p. 43) description of *flavirostris* is not quite accurate for all characters. Thus, the nape is very pale bluish lilac and not white; the crown feathers are tipped very pale bluish lilac instead of white in the majority of specimens. In worn specimens the tips wear off and the feathers appear wholly black. Furthermore, the culmen cannot be 'about 65 mm.' when the bill from skull in $10 \text{ } \circ \text{ } \circ \text{ }$ measures 37-42 (av. 40.4) mm.

762. Cissa erythrorhyncha occipitalis (Blyth). Redbilled Blue Magpie.

Bhabar: Amlekhganj: 1 & (March 9). Dun: Hitaura: 2 juv. 38, 2 22, 1 juv. 2, 1 nestling 2 (May 12, 15, June 13-16, July 14). Nepal Valley: Godavari, Thankot: 3 & 3, 2 22 (April 14, May 10-13).

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The Redbilled Blue Magpie is common in certain parts of central Nepal. Thus, we found a single specimen at Thankot for some days early in April, while during that period several parties were seen on the Chandragiri above Thankot. It was, however, very common at Godavari and above it on Phulchauki Danda during the second week of May. About Bhimphedi in the dun only a few parties were found, while it was common in a patch of forest situated between the Karra and Rapti rivers near Hitaura.

It occurs usually in small parties of four to six birds. It frequently feeds on the ground, walking awkwardly with such a long tail (cf. Rattray's observation mentioned by Baker, 1922d, p. 42). At Godavari a party was seen pecking at a baby Himalayan Cuckoo, Cuculus saturatus, see Part 2 of this series in the Journal 1960 (1961), 57 (3): 541-542, presumably stolen, and on examination it was found to have severe injuries on its head and abdomen caused by the predators' beaks.

Lowndes (1955, p. 29) reported it from the Marsiyandi Valley, central Nepal, at c. 915 m. in September; Rand & Fleming (1957, p. 109) found it in west-central Nepal at c. 610-915 m., and in eastern Nepal at c. 290 and 915 m. in winter; and Biswas (1960a) observed it in the Tamur Valley, eastern Nepal, at c. 1525 m. in June.

The two juvenile male specimens (June 15, 16) have no white spots on the forecrown, have the crown feathers sooty, centre of crown to nape white, and the tail growing. The juvenile female (July 14) is similar but with a longer tail. The nestling is also similarly coloured, but has down on abdomen and vent, and is smaller in size.

The May and June birds are worn.

In May the birds were very noisy and were chasing one another, presumably males chasing the females. The gonads were nearly ready in specimens taken May 10-13.

Colours of soft parts: Iris dark brown; eyelids brownish yellow; bill, legs and feet deep orange-red (in a female more orange, less red); claws horny, yellowish ochre on base; pads deep orange-red.

Measurements:

	Wing	Tail	Bill
4 88:	200, 202, 204, 207	440, 461, 464, 469	39, 41, 42(2)
4 우?:	194+, 198, 199,—	414+,-(3)	39, 40, 41, 42

763. Cissa chinensis chinensis (Boddaert). Green Magpie.

Dun: Hitaura: 2 & &, 5 PP (May 17-30).

The Green Magpie is not uncommon in the duns of central Nepal. It occurs in dense forests.

Scully (1879) did not record it from Nepal, and Ripley (1950b, p. 415) and Rand & Fleming (1957, p. 110) found it only in western Nepal.

The characteristic change of coloration of its plumage from green to blue in museum skins is commonly believed to be a post-mortem change. But surely it is not always so. Baker (1922d, pp. 45-46) noted that such changes might occur in live birds in ill-health or in captivity. It may be noted here that many specimens even in wild state (freshly killed) have varying amount of blue on their plumage. Thus, four of the seven specimens under report had already some blue on them when alive, and the following notes were made at the time of skinning:

- 1. of, May 17: Crown clear blue; slight blue wash on breast and abdomen.
 - 2. of, May 30: Head pale blue; underparts washed with blue.
- 3. Q, May 23: Crown clear blue; slight bluish wash on breast and abdomen.
 - 4. Q, May 30: Head pale blue; bluish band across breast.

All those skins were re-examined two years afterwards and were found to have changed considerably in coloration by becoming more or less completely blue.

The specimens are more or less worn.

Measurements:

	Wing	Tail	Bill
2 33:	157,—	202+,	39, 41
5 오오 :	146+, 147, 149, -(2)	199, 202, 203,—(2)	35, 36, 38(2), 39

764. Crypsirina vagabunda vagabunda (Latham). Indian Tree Pie.

TARAI: Simra: 2 PP (March 4).

The Tree Pie did not appear to be common in central Nepal. We were unable to locate it in the Nepal Valley or in the areas south of it, except in the tarai and probably also in the Hitaura dun. In the last-named area once some tree pies were seen at a great distance nearly at dusk, and am not sure of their identity. Their pale coloration suggested that they were probably the Indian Tree Pie.

Scully (1879, pp. 328-329) found it fairly common between the bhabar and Hitaura dun. Ripley (1950b, p. 415) reported it from the tarai. Rand & Fleming (1957, p. 110) recorded it from c. 275-1370 m. in west-central and c. 275 m. in eastern Nepal.

Our specimens are worn, one being very much so.

Three other skins, all unsexed, from central Nepal (two Hodgson skins in the British Museum from 'Kachar' and Nepal Valley according to Kinnear's corrections [278]

made on the labels, and one in the Zoological Survey of India, taken by the Museum Collector) measure: Wing 147, 152(2); tail 226, 227,—; bill 30+, 31, 34.

As Ripley (loc. cit.) has pointed out, the central Nepal birds are close to *vagabunda* in coloration, but a little larger, thus leaning towards *pallida*.

765. Crypsirina formosae himalayensis (Blyth). Eastern Himalayan Tree Pie.

Dendrocitta himalayensis Blyth, 1865, Ibis (2)1:45. (Himalayas, restricted to Sikkim by Ticehurst, 1925, p. 22.)

Dendrocitta formosae sarkari Kinnear & Whistler, 1930, Bull. Brit. orn. Cl. 51:17. [Anantagiri, Vishakhapatnam (= Vizagapatam) district, Andhra Pradesh.]

Dun: Hitaura, Kusumtar, Bhimphedi: 4 & d, 1 juv. d, 1 ♀ (March 12-14, May 10-12, June 2, 3). Nepal Valley: Godavari, Phulchauki Danda above Godavari, Thankot: 6 & d, 5 ♀♀ (March 23-April 13, May 10-13).

The Eastern Himalayan Tree Pie is a common bird of central Nepal from the dun up to the Nepal Valley. A few were also observed at Amlekhganj in the bhabar. During spring and summer it occurs singly or in pairs in fairly dense, as well as lighter parts of forests.

Lowndes (1955, p. 29) found it in the Marsiyandi Valley, central Nepal, at c. 915 m. in September. Rand & Fleming (1957, p. 111) recorded it from west-central Nepal at c. 915-1370 m. in winter. In eastern Nepal, Biswas (1960a) came across it in the Irkhua Valley at c. 1220-1525 m. and in the Tamur Valley at c. 1525 m. during June.

My May and June specimens are worn.

Birds were chasing one another (presumably males chasing females) in April and May. The gonads of specimens taken April 1 (Thankot) and May 10-13 (Godavari) were approaching breeding condition, and that of June 2 (Kusumtar) was fully developed.

Colours of soft parts: Iris deep crimson or crimson-brown; bill black (once with the tip of the upper mandible horny); legs, feet and claws very deep horny or black; pads grey.

Measurements:

10 ♂♂ 6 ♀♀ Wing: 132+, 138, 144 (2), 145 (2), 146 (2), 147,— 136, 141 (2), 142, 146, 148 Tail: 205, 213, 215, 218, 222, 232, 235, 243,—(2) 202, 210, 212, 215, 221, 223 Bill: 34 (3), 35 (3), 36 (4) 33, 34 (2), 35 (3)

The isolated population of *C. formosae* in the northern Eastern Ghats described by Kinnear & Whistler (loc. cit.) as *sarkari* (with Anantagiri, Andhra Pradesh, as the type locality) and admitted by Ripley (1961, p. 311) and Vaurie (1962, p. 248), is said to differ from *himalayensis* only by having a smaller bill. This is not, however, borne out by my examination of the material of the species

contained in the British Museum, the American Museum of Natural History and the Zoological Survey of India. This material includes three paratypes (with a topotype) of sarkari. The standard measurements of this material are as follows:

	Wing	Tail	Bill
W. Himalaya (Chenab Valley to Kumaon): 4 & :	147-156	243-260	35-375.
[= occidentalis Ticehurst, 1925].	$(152.5)^{a}$	(253.5)	(36.5)
7 ♀♀ :	149-156	241-261	35-40
	(152.4)	(249.7)	(37.4)
7 unsexed:	146-155	231-253	37-40
	(150.9)	(241.3)	(38.4)
E. Himalaya (Nepal to Assam): 30 30 :	137-151	194-228	34-39.5
[= himalayensis Blyth, 1865].	(142.7)	(211)	(36.5)
20 ♀♀:	137-148	192-230	33.5-39
	(141.8)	(207.3)	(36.1)
32 unsexed:	138-150	192-227	33-39
	(141.9)	(209.4)	(36.5)
N. Eastern Ghats¹ (Jeypore to 2 33: Anantagiri):	137, 142	203, 209	34, 35
[= 'sarkari' Kinnear & Whistler, 1930]. 1 2:	143	201	35

^aAverage measurements are given in parentheses.

¹ Whistler & Kinnear (1932a, p. 517, note), and Abdulali (1949, p. 391) mention a specimen ex Horsfield collection from Madras. This specimen, an unsexed adult, collected by Wight (or? Wright) is now in the British Museum. It measures: wing 151, tail 233, bill 37, and matches the western Himalayan occidentalis. Evidently, there must have been some error in the locality of the specimen.

It would appear from the measurements that sarkari fits in well within the subspecies himalayensis.

Baker's (1922d, p. 53) measurements of wing (132-140) and tail (200-210) of 'himalayensis' (= occidentalis + himalayensis) are not correct, as may be seen from the measurements presented above.

*766. Crypsirina frontalis frontalis (Horsfield). Blackbrowed Tree

The only record of the occurrence of the Blackbrowed Tree Pie in Nepal is based on Hodgson's later collection (Horsfield & Moore, 1854, p. 570; Sharpe, 1877, p. 78).

*767. Nucifraga caryocatactes macella Thayer & Bangs. Eastern Nutcracker.

Scully (1879) did not find the nutcracker in Nepal. Stevens (1923a, p. 516) came across it on the Nepal side of the Singalila Range, eastern Nepal, at c. 2895-3505 m. in March-May. Ripley (1950b, p. 416) noted it in the Tamur Valley, eastern Nepal, at c. 2590 m. upwards in winter. Polunin (1955, p. 887) reported it

from the Langtang Valley, central Nepal, up to c. 3960 m. in summer. Lowndes (1955, p. 29) found it in Manangbhot, central Nepal, at c. 3655 m. in summer. Rand & Fleming (1957, p. 111) recorded it from the Kali Gandak Valley, west-central Nepal, at c. 2590-2805 m. in winter, and in the Maulung Valley, eastern Nepal, at c. 3505 m. in winter. Biswas (1960a) heard it at c. 3505 m. in the Dudh Kosi Valley, eastern Nepal, in February.

Biswas (1950a) has shown that the Nepal birds belong to the eastern subspecies. Vaurie (1959a, p. 159; 1962, p. 257) has come to the same conclusion. However, Ripley (1961, pp. 312-313) has referred the Nepal birds to the western race hemispila.

*768. Pyrrhocorax pyrrhocorax himalayanus (Gould). Himalayan Redbilled Chough.

Like us, Scully (1879) and Ripley (1950b) were unable to find the Redbilled Chough in Nepal. Polunin (1955, p. 887) reported it from the Langtang Valley, central Nepal, at c. 3350 m. upwards in summer. Lowndes (1955, p. 30) noted it in Manangbhot, central Nepal, up to c. 4875 m. in summer. Rand & Fleming (1957, p. 111) recorded it from the Kali Gandak Valley, west-central Nepal, at c. 2745-2805 m. in winter. Biswas (1960a) found it in Khumbu, eastern Nepal, at c. 3655-4570 m. during February-April.

*769. Pyrrhocorax graculus digitatus Hemprich & Ehrenberg. Eastern Yellowbilled Chough.

The first record of the Yellowbilled Chough from Nepal was furnished by Stevens (1923a, p. 517) from the Nepal side of the Singalila Range, eastern Nepal, at c. 3610 m. in March. It has subsequently been reported by Lowndes (1955, p. 30) from Manangbhot, central Nepal, up to c. 4875 m. in summer, and Biswas (1960a) from Khumbu, eastern Nepal, at c. 3655-5425 m. during February-May.

770. Corvus splendens splendens Vieillot. Indian House Crow.

DUN: Hitaura: 1 & (June 24). Nepal Valley: Thankot: 4 & &, (June 29).

The House Crow is very common in and around all the villages and towns of Nepal from the plains up to about 1525 m.

It was breeding in June.

Measurements: 533: Wing 285, 287, 288, 290 (2); tail 174, 177, 178, 180, 186; bill 50, 51 (2), 55, 56.

771. Corvus macrorhynchos intermedius Adams. Himalayan Jungle

MARKHU VALLEY: Kulikhani, Deorali: 2 & A, 1 \(\rightarrow \) (April 27-May 2). CHITLANG VALLEY: Chitlang: 1 \(\delta \), 1 \(\rightarrow \) (April 19, 25). NEPAL VALLEY: Thankot: 1 juv. \(\delta \) (May 20).

The Himalayan Jungle Crow is not uncommon about 1220 m. upwards. It is usually found in pairs or small parties, frequently away from human habitation. From April 13 to April 22, three or four birds were found every afternoon circling round above the pass on the crest of Chandragiri, with outstretched wings, sometimes diving down a little, flying up again, and cawing harshly all the time. This aerial display would go on for some time; then the party would break up, or the birds would fly normally down the northern or southern sides of the mountain out of sight. Scully (1879, p. 325) described similar flights, but had seen larger flocks of 50-60 birds.

Scully (loc. cit.) reported it from the Nepal Valley; Stevens (1923a, p. 513) from the Mai Valley, eastern Nepal, below c. 3505 m. in March-April; Ripley (1950b, p. 414) from the tarai 'up to the highest elevations'; Proud (1952a, p. 361) from the Gandak-Kosi watershed, central Nepal, at c. 3350-3655 m. in spring; Polunin (1955, p. 887) from the Langtang Valley, central Nepal, up to c. 3350 m. in summer; Rand & Fleming (1957, p. 108) in winter from the western tarai, the Kali Gandak Valley in west-central Nepal at c. 2745 m., and the Maulung Valley in eastern Nepal at c. 3505 m.; and Biswas (1960a) from the Sun Kosi Valley in central Nepal at c. 1370-2285 m. in January, Khumbu in eastern Nepal at c. 3655-4570 m. in February-May, and the Arun and Tamur valleys in eastern Nepal at c. 1220-1830 m. in June.

Measurements:

	Wing	Tail	Bill
3 88:	316a, 341, 350	$199+^{a}$, 218 , $219+$	61.5,62 ^a ,—
2 오오 :	310, 311+	178, 195+	60,

^aThis specimen has brownish primaries and may be a first year bird.

All the specimens listed above, and those taken by Scully in the Nepal Valley (now partly in the British Museum and partly in the Zoological Survey of India) have white bases of nape feathers, bill 56-65, and are not as black or as glossy as birds from Tibet or high Sikkim, thus differing from *tibetosinensis* Kleinschmidt & Weigold, 1922, as discussed by Vaurie (1954a, pp. 17-19). See also Rand & Fleming (op. cit., pp. 108-109) for comments on their specimens.

772. Corvus macrorhynchos (? subspecies).

Dun: Hitaura: 1 juv. & (May 26).

Subspecific identification of such a young specimen was not possible for me.

It has, however, raised a question: What is the Jungle Crow that is found in the lower regions of Nepal?

All the jungle crows that were seen in the bhabar and the Hitaura dun looked distinctly smaller, in life, than the birds higher up (=intermedius), and their call was not quite so deep or loud. Moreover, juvenile intermedius has the bases of nape feathers white, but the juvenile specimen under report has them grey. Rand & Fleming's (1957, p. 109) specimen from Bilauri, western Nepal (c. 275 m.), which they placed under intermedius, also has them greyish.

Although nothing definite could be said until adult specimens are examined, the evidences presented above would indicate that the breeding birds of the lower regions of Nepal (below 600 m.) are not intermedius. They may possibly be, as Baker (1922d, p. 29) had indicated, intermediate between intermedius and the birds found in the plains immediately to the south of Nepal, which, curiously, are themselves intermediate between culminatus and levaillanti according to Whistler & Kinnear (1932a, p. 512). They advised to treat those birds as culminatus. An examination of carefully sexed series of the Jungle Crow from the lower regions of Nepal should yield interesting findings.

[Corvus corax tibetanus Hodgson. Tibetan Raven.

Lowndes (1955, p. 29) records the raven, *Corvus corax* (presumably the Tibetan Raven, *C. c. tibetanus* Hodgson) by sight in Manangbhot, central Nepal, between c. 4265 and 4570 m. in July-August.

No specimen of the species seems to have been taken in Nepal so far, although it is likely to occur in the plateau region north of the main Himalayan axis. In this connexion, it is interesting to note that both Baker (1922d, p. 23) and Ripley (1961, p. 318) have included Nepal within the range of the species, so has Vaurie (1962, p. 281) by implication.

A word of caution may here be said about sighting of the raven. From a distance, many specimens of the Himalayan Jungle Crow (Corvus macrorhynchos intermedius) in areas where the raven is likely to occur, look large enough to pass for the raven. It is only after collecting such specimens that their true identity is revealed. The characteristic neck hackles of the raven may not be clearly visible from a distance unless one pays particular attention to them through field glasses.]